

ROBERT ANDREWS MILLIKAN

(Chairman of the Executive Council of California Institute of Technology and Director of the Norman Bridge Laboratory)

ON March 22nd, 1868, Robert Andrews Millikan was born in a small town of Illinois. After graduation from the local high school he went to Oberlin College in Ohio, where in 1893 he received the Bachelor's Degree, and two years later the Master's Degree. He then went to Columbia University in New York City for his doctorate in Physics. Before beginning a brilliant career in Chicago University he went abroad for a year's further study in Berlin and Göttingen.

In addition to routine teaching during his twenty-five years in Chicago, Prof. Millikan found time and energy for an immense amount of fruitful research and writing. He found time also for popular lectures and a great variety of campus and community service. To him must go much credit for his part in the movement which is helping to educate the general public to the significance of modern science. His text-books in elementary physics, in particular, have greatly contributed to a new conception of science teaching. They help both student and teacher to see physics as a living, growing science intimately related to our everyday life.

Professor Millikan's intellectual curiosity and contagious enthusiasm are everywhere evident in his lectures and writings. His ingenious speculations, based on scientific data, catch the imagination and hold the interest of his readers, and whet their appetites for more information. It will be a great day for humanity when the average student of the sciences—and of other subjects—will be caught and drawn on in his studies by an irresistible curiosity rather than be driven by the corrosive fear of impending examinations. In order to help bring about the new day we need many teachers and writers of text-books (if indeed texts are to survive!) such as Professor Millikan who, by their own keen insight and their vigorous, friendly personalities, will inspire students to develop the best that is in them.

In recognition of Professor Millikan's

notable contributions to the advancement of knowledge, he has been awarded many honorary degrees by the great Universities of Europe and America. Gold Medals have been showered on him and many learned societies have honoured themselves and him by enrolling him on their membership lists.

Dr. Millikan's beautiful determination of the charge on the electron won for him in 1923 the much-coveted Nobel Prize and will long remain an outstanding example of human ingenuity. The refined simplicity of theory and laboratory technique enhance the elegance of this classic work. Professor Millikan once said, "If the Nobel Prize had not been awarded to Albert Einstein for his work on the Photo-Electric Effect, it might well have been given to him for any one of four or five other outstanding contributions". Similarly it may be said that if this rare Prize had not been given to Doctor Millikan for measuring the charge on an electron it might have been awarded to him for his own beautiful photo-electric measurements, or for his pioneering work in spectroscopy or the cosmic rays.

The titles of Professor Millikan's books indicate that in addition to his work in classroom and laboratory, he has found time to consider the significance of science for human welfare and to direct the attention of his readers to their responsibility for the right use of the new power which science is so rapidly conferring on immature men.

At the age of seventy-two (nearly), Prof. Millikan is not only the active head of one of the world's foremost schools of technology and director of its physics laboratory, but also finds time for committee work of international importance, and for continuous intensive research in his own special field of cosmic radiation. At the present time he, with Mrs. Millikan and two able collaborators, Dr. Victor Neher and Dr. W. H. Pickering, is in India collecting data on cosmic ray intensities in the stratosphere.

J. M. BENADE.